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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/761,514	01/16/2001	Steven D. Conover	1064-US	5648

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EXAMINER

KERNS, KEVIN P

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 08/06/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/761,514

Applicant(s)

CONOVER ET AL.

Examiner

Kevin P. Kerns

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 21 July 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to independent claims 1 and 29, it is unclear what type of "force" is provided in the "aligning" step of these method claims (in response to the positions of the optical components of the optical train). In other words, how would the optical components become "aligned" as a final step in the respective processes?

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Verdiell (US 6,207,950).

Verdiell discloses an optical electronic assembly having a flexure for maintaining alignment between optical elements, in which the optical assembly includes the following features and process steps to achieve optical component alignment: providing/installing an arrangement of a plurality of optical components (comprising an optical train assembly) having predetermined optical properties (for example, lens 16 having a focal length and an optoelectronic element laser diode 18), and an optical element 22 attached to a flexure 24 (attached by soldering, brazing, or welding, for example, and providing a degree of plastic deformation) on a package 10 comprising a substrate 12 (optical bench) and a positioning floor 14 having reference marks for relative positioning of all components; vertically aligning (measuring) optical parts mounted on a raised platform 20 (attached as submounts by solder bonding, brazing, or thermal bonding) adjustable with respect to "pick and place" precision of less than one micron vertically, and within a few microns precision in the lateral and transverse dimensions; and achieving further alignment via adjusting of the laser diode 18 (to provide an optical signal) to an (additional) precision of better than 5 microns after positioning of the optical components (abstract; column 2, lines 54-67; column 3, lines 1-67; column 4, lines 1-21; column 5, lines 16-67; column 6, lines 1-67; column 7, lines 1-67; column 8, lines 1-29; and Figures 1-7).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-29 insofar as definite are rejected under 35 U.S.C. 103(a) as being unpatentable over Dudel et al. (DE 198 05 849 -- only an abstract and Figures have been provided in the applicants' Information Disclosure Statement and International Search Report, such that no complete translation is available at this time).

Dudel et al. disclose a method for constructing and connecting optical components, in which the process includes the following: providing an arrangement of a plurality of optical components or subassemblies 12 having predetermined optical properties (e.g. focal lengths) via solder or other thermal bonding material 21 (with solder pads/bumps 13b allowing for plastic deformation) on an optical bench (10,11) to form an optical train (for a total of 3 subassemblies aligned along axis z of Figure 2); positioning the components/subassemblies 12 with reference to laser light 18 (optical signal) transmitted through a lens 16 and through the optical components 12; and thereby providing further adjustment (precision placement) to the alignment of the components 12 of the optical train to achieve accuracy on the micron scale (abstract; and Figures 1-8). Insofar as the abstract, Figures, and German text (see column 3, lines 17-43; column 4, lines 64-68; column 5, lines 1-68; and column 6, lines 1-20) are interpreted, one of ordinary skill in the art would have recognized that the respective distances between the plurality of positions "p" (reference marks) in Figures 6 and 7 would be determined prior to the preliminary alignment and/or subsequent laser alignment steps, since the optical properties of the optical components would be predetermined when placed on the optical bench to form the optical train, and such measurements between positions "p" would be advantageous for more rapidly achieving micron-scale alignment (abstract; column 3, lines 17-43; column 4, lines 64-68; column 5, lines 1-68; and column 6, lines 1-20).

Response to Arguments

9. The examiner acknowledges the applicants' request for continued examination (paper #11) with amendment (paper #12), received by the USPTO by FAX on July 21, 2003. In addition, the applicants have submitted an Information Disclosure Statement (paper #10), which was received by the USPTO on June 23, 2003. The Information Disclosure Statement has been reviewed, initialed, and enclosed with this communication. Prior objections to the drawings have been overcome by the applicants' proposed drawing correction to Figure 1. Prior claim objections to claims 7 and 28 have also been corrected by the applicants. Upon further review of the 35 USC 103(a) rejection of claims 1-28 in view of Beranek et al. (US 5,896,481), the examiner has retracted this rejection. The applicants have added new claim 29, such that claims 1-29 are presently under consideration in the application.

10. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

It is noted that the applicants have provided a statement (on page 9 of the applicants' amendment of paper #12) of the present application's alleged patentability over DE 198 05 849, which was cited in the search report as an "X" reference for claims 1-28 (note that applicants' new claim 29 appears to be simply a combination of claims 1 and 28). However, no translation of this German document was provided by the applicants. Therefore, the examiner is unable to comprehensively respond to the

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applicants' statement at this time, and a rejection based on DE 198 05 849 is provided in above paragraph 8.

Conclusion


11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Flanders et al. and Atia et al. references are also cited to show related art.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin P. Kerns whose telephone number is (703) 305-3472. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (703) 308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-6078 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

KPK
kpk
July 29, 2003


M. ALEXANDRA ELVE
PRIMARY EXAMINER